\PPENDIX

\PPENDIX A

Misspecification equation (without alternative sites variable):

$$Y_i = \beta_0 + \beta_1 X_{i1} + e_i$$

A true specification equation (with alternative sites variable):

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + e_i$$

where Y_i is trips per year, X_{i1} is price of park and X_{i2} refer to price of alternative sites. β_n where $n = 0,1,2.....$ is a coefficient of variables.

By made a regression on misspecification equations instead of true equation, leads to:

a) Bias of intercept

$$E(\hat{\beta}_0) = E(\hat{Y} - \beta_1 \tilde{X}_1) \text{ equation 1}$$

b) Bias of slope

$$E(\hat{\beta}_1) = \beta_1 + \beta_2 d_{21} \text{ where } d_{21} \text{ is obtained from } X_{i2} = d_{20} + d_{21} X_{i1} + u_i$$

Equation 1 can be restated by using true specification for $E(\hat{Y})$ to give :

$$\begin{aligned} E(\hat{\beta}_0) &= E(\hat{Y}) - E(\hat{\beta}_1)\hat{X}_i \\ &= \beta_0 + \beta_1 \bar{X}_1 + \beta_2 \bar{X}_2 - \beta_1 \bar{X}_1 - \beta_2 d_{21} \bar{X}_1 \\ &= \beta_0 + \beta_2 \bar{X}_2 - \beta_2 d_{21} \bar{X}_1 \end{aligned}$$

While the expectation of true equation is

$$E(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2$$

The expectation of the misspecification estimated equation is

$$E(Y^*) = E(\hat{\beta}_0) + E(\hat{\beta}_1) X_1$$

By plug in the value of $E(\hat{\beta}_0)$ and $E(\hat{\beta}_1) X_1$, the misspecification becomes

$$E(Y^*) = \beta_0 + \beta_2 \bar{X}_2 - \beta_2 d_{21} \bar{X}_1 + (\beta_1 + \beta_2 d_{21}) X_1$$

The discrepancy between the true and misspecification equation is

$$E(Y^* - Y) = -\beta_2 d_{21} \bar{X}_1 + \beta_2 d_{21} X_1$$

APPENDIX B

From the Trip Generating Function (TGF), a function of the Travel Cost (TC) is derived by letting all the dependent variables as a constant term, except on the TC coeffiecient.

To treat all the dependent variables are constant, the coeffiecient's of variable is multiplying with their mean.

For example in Model 1 (linear) :

$$\text{TGF} : V = 3.76 - 0.065TC1 + 0.071AGE + 0.00082INC - 0.295EDU - 0.00297CSSITES$$

From this study, mean for age, income, education and cssites is 27.08, RM 2182.91, 13.04 and RM 9.22, respectively. By multiplying the coefficient of variable with their mean, a TC can be written as :

$$TC1 = 55.37 - 15.38V$$

Replacing the value of V with their mean value, 2.962, the mean of travel cost is obtained.

Mean Travel Cost (MTC) : $MTC = 55.37 - 15.38(2.962)$

By knowing the value of choke price (RM 55.37) and mean of travel cost (RM 9.85), the consumer surplus is obtained by calculating the area under the demand curve.

APPENDIX C

UNIVERSITI MALAYA

BORANG SOAL SELIDIK
TAMAN PERTANIAN MALAYSIA
SHAH ALAM

Kepada Pelawat Yang Dihormati,

Borang soal selidik ini adalah bertujuan untuk membuat kajian ilmiah di Taman Pertanian Malaysia, Shah Alam. Secara lazimnya, segala maklumat yang diberikan hanya akan digunakan untuk kajian ini sahaja. Kerjasama yang diberikan dari pihak saudara/saudari amatlah dihargai.

Adakah anda setuju untuk ditemuramah ?

☐ Ya ☐ Tidak

Terima kasih.

* *Sila tandakan (x) di dalam kotak yang disediakan*

A. GELAGAT REKREASI PELAWAT

Q1. Adakah ini merupakan kali pertama anda melawat Taman Pertanian Malaysia?

☐ Ya

☐ Tidak ⟶ Sila jawab Q1 (a) dan (b)

(a) Berapa kalikah anda telah melawat taman ini dalam setahun (2000)?

.....kali

(b) Pada pandangan anda apakah tahap perubahan yang berlaku di taman ini semenjak kali terakhir anda melawatinya?

Bertambah baik	
Tiada perubahan	
Kurang baik	

Q2. Dimanakah tempat penginapan anda semasa melawat taman ini? (e.g : Hotel Quality, Shah Alam)

.....

Q3. Pengangkutan jenis apakah yang anda gunakan untuk datang ke Taman Pertanian Malaysia, Shah Alam dari tempat penginapan anda?

Bas Pelancong / Bas Sewa	
Bas Awam	
Kereta / Van Sendiri	
Kereta / Van Sewa	
Teksi	
Motorsikal	
Lain-lain (Nyatakan)	

Q4. Mengapakah anda melawat Taman Pertanian Malaysia, Shah Alam?

Pakej Pelancongan	
Minat / Hobi	
Rakan Sebaya / Saudara	
Sumber lain (Nyatakan)	

.....

. Bagaimanakah anda mendapat maklumat berkenaan dengan Taman Pertanian Malaysia?

Agen Pelancongan	
Pengiklanan	
Risalah	
Majalah / Surat Khabar	
Kawan / Saudara	
Internet	
Sumber Lain (Nyatakan)	

.....

. Berapa banyakkah jumlah wang yang dibelanjakan di taman ini?

Makanan	RM
Aktiviti / Perkhidmatan	RM
Lain-lain	RM

. Berapa lamakah (jam) anda berada di taman ini?

.....(jam)

. Semasa dalam perjalanan untuk melawat taman ini, sila nyatakan tempat-tempat lain yang anda ingin / sudah lawati.

.....

9. Sekiranya taman ini ditutup, sila tandakan tempat lain yang ingin anda lawati. (Nyatakan keutamaan anda mengikut urutan e.g : 1,2,...)

Sunway Lagoon	
Mines Water World	
KLCC	
Putrajaya	
Masjid Sultan Salahuddin (Shah Alam)	
Taman Tasik Perdana, Kuala Lumpur	

10. Sila tandakan (x) pada aktivti/kemudahan yang telah anda jalankan/gunakan semasa melawat taman ini dan berikan skornya berasaskan kepada skor yang terdapat di bawah:

1 - sangat memuaskan
2 - memuaskan
3 - kurang memuaskan
4 - tidak memuaskan

AKTIVITI	DILAKUKAN	SKOR
Menaiki Bas Pengantara		
Makan di Kios		
Makan di Kantin		
Berjalan di Jambatan Gantung		
Melawat Rumah Iklim		
Berkhemah		
Memancing		
Mandi di kolam mandi		
Berbasikal		
Lain-lain		

KEMUDAHAN	DIGUNAKAN	SKOR
Surau		
Tandas Awam		
Kawasan perfileman		
Lesen Video		
Amphitheatre		
Puncak Seni		
Dewan Makan		
Hari Keluarga		

B. KRITERIA SOSIO EKONOMI RESPONDEN

Q11. Bilakah tarikh lahir anda? ☐ Bulan ☐ Tahun

Q12. Jantina: ☐ Lelaki ☐ Perempuan

Q13. Bangsa : ☐ Melayu ☐ Cina ☐ India ☐ Lain-lain

Q14. Bilangan tahun pendidikan formal / akademik:

0	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24

Q15. Pekerjaan Utama:

Berkerja Sendiri	
Makan Gaji (Sepenuh Masa)	
Makan Gaji (Separuh Masa)	
Tidak Berkerja	
Pesara	
Pelajar	
Surirumah	
Lain-lain (Nyatakan)	

.....

Q16. Pendapatan Bulanan (RM):
**Sekiranya pelajar atau tidak berkerja, nyatakan pendapatan ibu-bapa / pasangan*

400	500	600	700	800	900
1000	1100	1200	1300	1400	1500
1600	1700	1800	1900	2000	2100
2200	2300	2400	2500	2600	2700
2800	2900	3000	3100	3200	3300
3400	3500	3600	3700	3800	3900
4000	4100	4200	4300	4400	4500

Sekian, Terima Kasih.

'PENDIX D

UNIVERSITY OF MALAYA

QUESTIONAIRE ON
THE TAMAN PERTANIAN MALAYSIA
SHAH ALAM

ear Visitors,

iis questionaire is constructed to study Taman Pertanian Malaysia, Shah Alam. Any formation given will be used only for this purpose and it will be strictly confidential. our cooperation in answering this questionaire is highly appreciated.

o you agree to be interviewed ?

☐ Yes ☐ No

Thank you

VISITOR'S RECREATIONAL BEHAVIOUR

. Is this your first time to visit Taman Pertanian Malaysia?

☐ Yes

☐ No ⟶ Please answer Q1 (a) dan (b)

(c) How many times have you visited this park in the year 2000?

.....times

(d) How is the condition of this park since your last visit?

Impoved	
No changes	
Bad	

2. Where did you stay when visiting this park? (e.g : Hotel Quality, Shah Alam)

.....

3. What kind of transportation did you use to come to this park?

Tour/rented bus	
Public bus	
Own car/van	
Rented car/van	
Taxi	
Motorcycle	
Others (please specify)	

4. Why did you visit Taman Pertanian Malaysia, Shah Alam?

Tour package	
Hobby	
Friends/relatives	
Other sources (please specify)	

4. How did you know of the Taman Pertanian Malaysia?

Travel Agency	
Advertisement	
Brochures	
Magazines/newspaper	
Friends/relatives	
Internet	
Others (please specify)	

5. How much did you spend in this park?

Food	RM
Activities/services	RM
Others	RM

7. How much time did spend in this park?

.....(hours)

8. While coming to this park, please state other places that you might want to visit.

.....

9. Please tick other places below that you might go if this park was to be closed. (Tick your answers according to preferrences e.g : 1,2,...)

Sunway Lagoon	
Mines Water World	
KLCC	
Putrajaya	
Masjid Sultan Salahuddin (Shah Alam)	
Taman Tasik Perdana, Kuala Lumpur	

). Please tick 'x' in the column below on actvities and facilities that you have done and used. Give the scores according to the rating below :

1 - very good
2 - good
3 - poor
4 - very poor

ACTIVITIES	DONE	SCORE
Feeder bus		
Food at the kiosk		
Food at the canteen		
Hanging Bridge		
4 Temperature House		
Camping		
Fishing		
Swimming		
Cycling		
Lain-lain		

FACILITIES	USED	SCORE
Surau		
Public toilet		
Film Shooting		
Video licence		
Amphitheatre		
Peak of Art		
Dining hall		
Camping Sites		

RESPONDENT'S SOCIO ECONOMIC CRITERIA

11. Date of birth? ☐ Month ☐ Year

12. Sex: ☐ Male ☐ Female

13. Race : ☐ Malay ☐ Chinese ☐ Indian ☐ Others

14. Years of formal schooling ?

0	1	2	3	4
5	6	7	8	9
10	11	12	13	14
15	16	17	18	19
20	21	22	23	24

15. Main Occupation:

Self employed	
Employed (Full time)	
Employed (Part time)	
Unemployed	
Pensioner	
Student	
Housewife	
Others (please specify)	

.....

16. Monthly Income (RM):
**If student or unemployed, please state parents or spouse income.*

400	500	600	700	800	900
1000	1100	1200	1300	1400	1500
1600	1700	1800	1900	2000	2100
2200	2300	2400	2500	2600	2700
2800	2900	3000	3100	3200	3300
3400	3500	3600	3700	3800	3900
4000	4100	4200	4300	4400	4500

This is the end. Thank you for your information.

APPENDIX E

STATISTICS : Socio-economic profile

	N Valid	Mean	Std. Deviation
Trips Taken	158	2.9620	7.4028
LN. Trips Taken	84	1.0562	0.9854
Age	158	27.0759	8.2775
Income (RM/Month)	158	2182.9114	2095.7097
Education (years of schooling)	158	13.0380	2.6225
Cost to Substitute Sites (one way distance/km)	158	9.2184	18.5580

Source : Sample Survey

PPENDIX F

E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

1.	BUS	feeder bus
2.	FOODK	food at kiosk
3.	FOODC	food at canteen
4.	HBRIDGE	hanging bridge
5.	THOUSE	temp. house
6.	CAMPING	camping sites
7.	FISHING	fishing sites
8.	SWIMMING	swimming
9.	CYCLING	cycling
.0.	FAMILY	family day sites
.1.	SURAU	surau
.2.	TOILET	toilet
.3.	FILM	film shooting
.4.	VIDEO	video license
.5.	AMPTHEAT	amphitheatre
.6.	ART	peak of art
.7.	HALL	dining hall

		Mean	Std Dev	Cases
1.	BUS	3.5380	1.4787	158.0
2.	FOODK	3.8924	1.4078	158.0
3.	FOODC	4.2152	1.3275	158.0
4.	HBRIDGE	3.6582	1.5507	158.0
5.	THOUSE	3.7848	1.5895	158.0
6.	CAMPING	4.9304	.4388	158.0
7.	FISHING	4.9367	.4175	158.0
8.	SWIMMING	4.9304	.4670	158.0
9.	CYCLING	3.8291	1.6363	158.0
10.	FAMILY	5.0000	.0000	158.0
11.	SURAU	4.5949	1.0408	158.0
12.	TOILET	3.7025	1.3235	158.0
13.	FILM	4.9810	.2387	158.0
14.	VIDEO	5.0000	.0000	158.0
15.	AMPTHEAT	4.9873	.1591	158.0
16.	ART	4.9557	.3059	158.0
17.	HALL	4.9937	.0796	158.0

tatistics for	Mean	Variance	Std Dev	N of Variables
SCALE	75.9304	25.3136	5.0313	17

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
BUS	72.3924	22.8769	.0177	.3693
FOODK	72.0380	20.4062	.2300	.2742
FOODC	71.7152	21.6190	.1565	.3079
HBRIDGE	72.2722	19.2567	.2683	.2503
THOUSE	72.1456	19.1698	.2599	.2534
CAMPING	71.0000	24.7389	.0875	.3359
FISHING	70.9937	25.7006	-.1326	.3625
SWIMMING	71.0000	25.3631	-.0569	.3549
CYCLING	72.1013	23.6330	-.0627	.4138
FAMILY	70.9304	25.3136	.0000	.3443
SURAU	71.3354	23.0269	.1205	.3228
TOILET	72.2278	20.7503	.2332	.2755
FILM	70.9494	25.1057	.0631	.3408
VIDEO	70.9304	25.3136	.0000	.3443
AMPTHEAT	70.9430	24.9330	.2236	.3344
ART	70.9747	24.5216	.2305	.3251
HALL	70.9367	25.1170	.2386	.3390

Reliability Coefficients
N of Cases = 158.0 N of Items = 17
Alpha = .3430

APPENDIX G

MAP : Socio-economic profile

SEX	
Male	54.4 %
Female	45.6 %

EDUCATION	
No Formal Edu.	0.6 %
Primary	0.6 %
SRP/PMR	3.2 %
SPM	41.8 %
College	25.3 %
Uni./Professional	28.3 %

RACE	
Malay	65.8 %
Chinese	24.7 %
Indian	4.4 %
Others	5.1 %

TRANSPORTATION	
Tour/Rental bus	10.1 %
Public bus	1.3 %
Private car/van	50.6 %
Rental car/van	3.8 %
Taxi	10.8 %
Motorcycle	23.4 %

DISTANCE (ONE-WAY) IN KM	
0-4.99	16.5 %
5-10	37.3 %
11-40	38.0 %
41-70	1.3 %
71-100	0.6 %
101 and above	6.3 %

PARK'S CONDITION	
Good Improvement	22.8 %
No Changes	23.4 %
Bad Improvement	7.6 %
Missing Value	46.2 %

NEW VISITOR ?	
Yes	46.2 %
No	53.8 %

AGE	
15-19	23.4 %
20-29	46.2 %
30-39	20.3 %
40-49	8.2 %
50-59	1.9 %

REASONS TO VISIT	
Tour package	8.9 %
Self interest/hobby	48.7 %
Peer group/Rel.	10.1 %
Others	32.3 %

INFORMATION	
Travel Agency	2.5 %
Advertisement	13.3 %
Brochures	5.1 %
Magazines	6.3 %
Friends	66.5 %
Others	6.3 %

MONEY SPENT (RM)	
0-10	19.0 %
11-20	42.4 %
21-30	19.6 %
31-40	9.5 %
41-50	7.6 %
51 and above	1.9 %

Source : Sample Survey

APPENDIX H
MODEL 1

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 09:57
Sample: 1 158
Included observations: 158

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.758975	3.710842	1.012971	0.3127
TC1	-0.064775	0.074428	-0.870292	0.3855
AGE	0.070467	0.083515	0.843770	0.4001
INCOME	0.000816	0.000358	2.279443	0.0240
EDU	-0.294789	0.259628	-1.135430	0.2580
CSSITES	-0.029690	0.033169	-0.895115	0.3721

R-squared	0.077291	Mean dependent var	2.962025
Adjusted R-squared	0.046939	S.D. dependent var	7.402776
S.E. of regression	7.226949	Akaike info criterion	3.992869
Sum squared resid	7938.776	Schwartz criterion	4.109170
Log likelihood	-533.6289	F-statistic	2.546473
Durbin-Watson stat	2.091185	Prob(F-statistic)	0.030336

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:05
Sample: 1 158
Included observations: 158
Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.758975	4.929423	0.762559	0.4469
TC1	-0.064775	0.042785	-1.513939	0.1321
AGE	0.070467	0.113122	0.622932	0.5343
INCOME	0.000816	0.000559	1.459278	0.1466
EDU	-0.294789	0.301648	-0.977263	0.3300
CSSITES	-0.029690	0.014764	-2.011008	0.0461

R-squared	0.077291	Mean dependent var	2.962025
Adjusted R-squared	0.046939	S.D. dependent var	7.402776
S.E. of regression	7.226949	Akaike info criterion	3.992869
Sum squared resid	7938.776	Schwartz criterion	4.109170
Log likelihood	-533.6289	F-statistic	2.546473
Durbin-Watson stat	2.091185	Prob(F-statistic)	0.030336

MODEL 2

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:09
Sample: 1 158
Included observations: 158

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.809816	3.712964	1.026085	0.3065
TC2	-0.070920	0.076698	-0.924665	0.3566
AGE	0.066980	0.083365	0.803455	0.4230
INCOME	0.000805	0.000358	2.250829	0.0258
EDU	-0.294522	0.259346	-1.135631	0.2579
CSSITES	-0.028471	0.033340	-0.853972	0.3945

R-squared	0.077880	Mean dependent var	2.962025
Adjusted R-squared	0.047547	S.D. dependent var	7.402776
S.E. of regression	7.224641	Akaike info criterion	3.992230
Sum squared resid	7933.707	Schwartz criterion	4.108531
Log likelihood	-533.5785	F-statistic	2.567522
Durbin-Watson stat	2.090108	Prob(F-statistic)	0.029179

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:10
Sample: 1 158
Included observations: 158
Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.809816	4.932924	0.772324	0.4411
TC2	-0.070920	0.044332	-1.599732	0.1117
AGE	0.066980	0.112766	0.593977	0.5534
INCOME	0.000805	0.000557	1.446265	0.1502
EDU	-0.294522	0.300584	-0.979831	0.3287
CSSITES	-0.028471	0.014452	-1.970068	0.0506

R-squared	0.077880	Mean dependent var	2.962025
Adjusted R-squared	0.047547	S.D. dependent var	7.402776
S.E. of regression	7.224641	Akaike info criterion	3.992230
Sum squared resid	7933.707	Schwartz criterion	4.108531
Log likelihood	-533.5785	F-statistic	2.567522
Durbin-Watson stat	2.090108	Prob(F-statistic)	0.029179

MODEL 3

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:11
Sample: 1 158
Included observations: 158

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.750011	3.706248	1.011808	0.3132
TC3	-0.068020	0.076018	-0.894780	0.3723
AGE	0.067561	0.083387	0.810210	0.4191
INCOME	0.000809	0.000358	2.261304	0.0252
EDU	-0.293186	0.259330	-1.130550	0.2600
CSSITES	-0.028546	0.033372	-0.855377	0.3937

R-squared	0.077552	Mean dependent var	2.962025
Adjusted R-squared	0.047209	S.D. dependent var	7.402776
S.E. of regression	7.225927	Akaike info criterion	3.992586
Sum squared resid	7936.531	Schwartz criterion	4.108887
Log likelihood	-533.6066	F-statistic	2.555795
Durbin-Watson stat	2.090857	Prob(F-statistic)	0.029818

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:12
Sample: 1 158
Included observations: 158
Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.750011	4.916419	0.762752	0.4468
TC3	-0.068020	0.042792	-1.589544	0.1140
AGE	0.067561	0.112818	0.598852	0.5502
INCOME	0.000809	0.000558	1.451159	0.1488
EDU	-0.293186	0.300111	-0.976923	0.3302
CSSITES	-0.028546	0.014554	-1.961323	0.0517

R-squared	0.077552	Mean dependent var	2.962025
Adjusted R-squared	0.047209	S.D. dependent var	7.402776
S.E. of regression	7.225927	Akaike info criterion	3.992586
Sum squared resid	7936.531	Schwartz criterion	4.108887
Log likelihoo	-533.6066	F-statistic	2.555795
Durbin-Watson stat	2.090857	Prob(F-statistic)	0.029818

ODEL 4

// Dependent Variable is TRIPS
te: 04/18/01 Time: 10:13
mple: 1 158
cluded observations: 158

riable	Coefficient	Std. Error	T-Statistic	Prob.
	3.708908	3.680008	1.007853	0.3151
C4	-0.028978	0.025559	-1.133763	0.2587
GE	0.056792	0.083686	0.678628	0.4984
COME	0.001263	0.000538	2.348796	0.0201
DU	-0.268186	0.257695	-1.040710	0.2997
SSITES	-0.034237	0.032644	-1.048811	0.2959

squared	0.080470	Mean dependent var	2.962025
djusted R-squared	0.050222	S.D. dependent var	7.402776
E. of regression	7.214491	Akaike info criterion	3.989418
um squared resid	7911.430	Schwartz criterion	4.105719
g likelihood	-533.3563	F-statistic	2.660353
rbin-Watson stat	2.083137	Prob(F-statistic)	0.024568

// Dependent Variable is TRIPS
ate: 04/18/01 Time: 10:13
mple: 1 158
cluded observations: 158
eteroskedasticity-Consistent Standard Errors & Covariance

ariable	Coefficient	Std. Error	T-Statistic	Prob.
	3.708908	4.699363	0.789236	0.4312
C4	-0.028978	0.020434	-1.418125	0.1582
GE	0.056792	0.110026	0.516170	0.6065
NCOME	0.001263	0.000623	2.029447	0.0442
DU	-0.268186	0.295456	-0.907701	0.3655
SSITES	-0.034237	0.015750	-2.173769	0.0313

-squared	0.080470	Mean dependent var	2.962025
djusted R-squared	0.050222	S.D. dependent var	7.402776
E. of regression	7.214491	Akaike info criterion	3.989418
um squared resid	7911.430	Schwartz criterion	4.105719
og likelihood	-533.3563	F-statistic	2.660353
urbin-Watson stat	2.083137	Prob(F-statistic)	0.024568

MODEL 5

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:15
Sample: 1 158
Included observations: 158

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.690172	3.678692	1.003121	0.3174
TC5	-0.028779	0.025555	-1.126173	0.2619
AGE	0.057112	0.083668	0.682596	0.4959
INCOME	0.001262	0.000539	2.341499	0.0205
EDU	-0.268047	0.257711	-1.040109	0.2999
CSSITES	-0.034166	0.032646	-1.046550	0.2970

R-squared	0.080367	Mean dependent var	2.962025
Adjusted R-squared	0.050116	S.D. dependent var	7.402776
S.E. of regression	7.214895	Akaike info criterion	3.989530
Sum squared resid	7912.315	Schwartz criterion	4.105831
Log likelihood	-533.3652	F-statistic	2.656654
Durbin-Watson stat	2.083529	Prob(F-statistic)	0.024737

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:15
Sample: 1 158
Included observations: 158
Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.690172	4.701793	0.784844	0.4338
TC5	-0.028779	0.020425	-1.409020	0.1609
AGE	0.057112	0.110071	0.518863	0.6046
INCOME	0.001262	0.000622	2.029145	0.0442
EDU	-0.268047	0.295512	-0.907060	0.3658
CSSITES	-0.034166	0.015767	-2.166928	0.0318

R-squared	0.080367	Mean dependent var	2.962025
Adjusted R-squared	0.050116	S.D. dependent var	7.402776
S.E. of regression	7.214895	Akaike info criterion	3.989530
Sum squared resid	7912.315	Schwartz criterion	4.105831
Log likelihood	-533.3652	F-statistic	2.656654
Durbin-Watson stat	2.083529	Prob(F-statistic)	0.024737

MODEL 6

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:16
Sample: 1 158
Included observations: 158

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	4.021456	3.701687	1.086384	0.2790
TC6	-0.072921	0.056418	-1.292513	0.1981
AGE	0.058683	0.083362	0.703949	0.4825
INCOME	0.001188	0.000463	2.567927	0.0112
EDU	-0.284982	0.257605	-1.106276	0.2704
CSSITES	-0.030127	0.032779	-0.919092	0.3595

R-squared	0.082774	Mean dependent var	2.962025
Adjusted R-squared	0.052602	S.D. dependent var	7.402776
S.E. of regression	7.205444	Akaike info criterion	3.986909
Sum squared resid	7891.600	Schwartz criterion	4.103210
Log likelihood	-533.1581	F-statistic	2.743426
Durbin-Watson stat	2.085761	Prob(F-statistic)	0.021050

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:17
Sample: 1 158
Included observations: 158
Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	4.021456	4.744736	0.847561	0.3980
TC6	-0.072921	0.039587	-1.842026	0.0674
AGE	0.058683	0.110618	0.530500	0.5965
INCOME	0.001188	0.000598	1.988075	0.0486
EDU	-0.284982	0.293603	-0.970639	0.3333
CSSITES	-0.030127	0.015969	-1.886645	0.0611

R-squared	0.082774	Mean dependent var	2.962025
Adjusted R-squared	0.052602	S.D. dependent var	7.402776
S.E. of regression	7.205444	Akaike info criterion	3.986909
Sum squared resid	7891.600	Schwartz criterion	4.103210
Log likelihood	-533.1581	F-statistic	2.743426
Durbin-Watson stat	2.085761	Prob(F-statistic)	0.021050

MODEL 7

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:18
Sample: 1 158
Included observations: 158

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.967629	3.697182	1.073150	0.2849
TC7	-0.071490	0.056218	-1.271656	0.2054
AGE	0.059464	0.083341	0.713502	0.4766
INCOME	0.001185	0.000464	2.552758	0.0117
EDU	-0.284319	0.257635	-1.103570	0.2715
CSSITES	-0.030031	0.032799	-0.915618	0.3613

R-squared	0.082455	Mean dependent var	2.962025
Adjusted R-squared	0.052273	S.D. dependent var	7.402776
S.E. of regression	7.206698	Akaike info criterion	3.987257
Sum squared resid	7894.348	Schwartz criterion	4.103558
Log likelihood	-533.1856	F-statistic	2.731892
Durbin-Watson stat	2.086642	Prob(F-statistic)	0.021507

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:18
Sample: 1 158
Included observations: 158
Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	3.967629	4.743488	0.836437	0.4042
TC7	-0.071490	0.039131	-1.826917	0.0697
AGE	0.059464	0.110728	0.537028	0.5920
INCOME	0.001185	0.000596	1.988646	0.0485
EDU	-0.284319	0.293565	-0.968504	0.3343
CSSITES	-0.030031	0.016031	-1.873370	0.0629

R-squared	0.082455	Mean dependent var	2.962025
Adjusted R-squared	0.052273	S.D. dependent var	7.402776
S.E. of regression	7.206698	Akaike info criterion	3.987257
Sum squared resid	7894.348	Schwartz criterion	4.103558
Log likelihood	-533.1856	F-statistic	2.731892
Durbin-Watson stat	2.086642	Prob(F-statistic)	0.021507

MODEL 8

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:20
Sample: 1 158
Included observations: 158

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	4.936905	3.704971	1.332508	0.1847
TC8	-0.042917	0.020135	-2.131442	0.0347
AGE	0.058835	0.082455	0.713549	0.4766
INCOME	0.001487	0.000476	3.123617	0.0021
EDU	-0.280218	0.255032	-1.098758	0.2736
CSSITES	-0.041861	0.032484	-1.288669	0.1995

R-squared	0.099605	Mean dependent var	2.962025
Adjusted R-squared	0.069987	S.D. dependent var	7.402776
S.E. of regression	7.139031	Akaike info criterion	3.968389
Sum squared resid	7746.795	Schwartz criterion	4.084690
Log likelihood	-531.6950	F-statistic	3.362952
Durbin-Watson stat	2.082052	Prob(F-statistic)	0.006555

LS // Dependent Variable is TRIPS
Date: 04/18/01 Time: 10:20
Sample: 1 158
Included observations: 158
Heteroskedasticity-Consistent Standard Errors & Covariance

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	4.936905	4.781466	1.032509	0.3035
TC8	0.042917	0.017110	-2.508322	0.0132
AGE	0.058835	0.107541	0.547096	0.5851
INCOME	0.001487	0.000685	2.170276	0.0315
EDU	-0.280218	0.292892	-0.956728	0.3402
CSSITES	-0.041861	0.016596	-2.522285	0.0127

R-squared	0.099605	Mean dependent var	2.962025
Adjusted R-squared	0.069987	S.D. dependent var	7.402776
S.E. of regression	7.139031	Akaike info criterion	3.968389
Sum squared resid	7746.795	Schwartz criterion	4.084690
Log likelihood	-531.6950	F-statistic	3.362952
Durbin-Watson stat	2.082052	Prob(F-statistic)	0.006555

APPENDIX I

MODEL 1

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:33
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.780377	0.746064	2.386360	0.0194
TC1	-0.009825	0.018986	-0.517512	0.6063
AGE	0.008709	0.013994	0.622319	0.5355
INCOME	0.000108	6.07E-05	1.780672	0.0789
EDU	-0.083955	0.050468	-1.663534	0.1002
CSSITES	-0.013289	0.012190	-1.090122	0.2790

R-squared	0.089405	Mean dependent var	1.055595
Adjusted R-squared	0.031034	S.D. dependent var	0.985649
S.E. of regression	0.970234	Akaike info criterion	0.008314
Sum squared resid	73.42568	Schwartz criterion	0.181944
Log likelihood	-113.5400	F-statistic	1.531663
Durbin-Watson stat	1.562743	Prob(F-statistic)	0.189681

MODEL 2

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:35
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.786999	0.749649	2.383782	0.0196
TC2	-0.011016	0.021071	-0.522816	0.6026
AGE	0.008488	0.014011	0.605829	0.5464
INCOME	0.000105	6.06E-05	1.734402	0.0868
EDU	-0.084218	0.050566	-1.665527	0.0998
CSSITES	-0.012978	0.012288	-1.056194	0.2941

R-squared	0.089470	Mean dependent var	1.055595
Adjusted R-squared	0.031102	S.D. dependent var	0.985649
S.E. of regression	0.970200	Akaike info criterion	0.008244
Sum squared resid	73.42050	Schwartz criterion	0.181873
Log likelihood	-113.5371	F-statistic	1.532871
Durbin-Watson stat	1.546631	Prob(F-statistic)	0.189315

MODEL 3

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:36
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.785765	0.743036	2.403335	0.0186
TC3	-0.011414	0.020572	-0.554807	0.5806
AGE	0.008529	0.014002	0.609121	0.5442
INCOME	0.000106	6.06E-05	1.749676	0.0841
EDU	-0.084357	0.050407	-1.673525	0.0982
CSSITES	-0.012949	0.012269	-1.055411	0.2945

R-squared	0.089870	Mean dependent var	1.055595
Adjusted R-squared	0.031529	S.D. dependent var	0.985649
S.E. of regression	0.969987	Akaike info criterion	0.007803
Sum squared resid	73.38818	Schwartz criterion	0.181433
Log likelihood	-113.5186	F-statistic	1.540417
Durbin-Watson stat	1.550719	Prob(F-statistic)	0.187045

MODEL 4

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:36
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.808642	0.692336	2.612377	0.0108
TC4	-0.007422	0.004326	-1.715502	0.0902
AGE	0.005689	0.013883	0.409789	0.6831
INCOME	0.000215	8.72E-05	2.468344	0.0158
EDU	-0.076316	0.047815	-1.596088	0.1145
CSSITES	-0.014572	0.011858	-1.228815	0.2228

R-squared	0.119500	Mean dependent var	1.055595
Adjusted R-squared	0.063058	S.D. dependent var	0.985649
S.E. of regression	0.954067	Akaike info criterion	-0.025294
Sum squared resid	70.99899	Schwartz criterion	0.148336
Log likelihood	-112.1285	F-statistic	2.117209
Durbin-Watson stat	1.587508	Prob(F-statistic)	0.072064

MODEL 5

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:37
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.805588	0.691844	2.609819	0.0109
TC5	-0.007474	0.004329	-1.726700	0.0882
AGE	0.005702	0.013877	0.410930	0.6823
INCOME	0.000217	8.75E-05	2.476440	0.0154
EDU	-0.076230	0.047804	-1.594649	0.1148
CSSITES	-0.014584	0.011856	-1.230158	0.2223

R-squared	0.119919	Mean dependent var	1.055595
Adjusted R-squared	0.063504	S.D. dependent var	0.985649
S.E. of regression	0.953840	Akaike info criterion	-0.025770
Sum squared resid	70.96520	Schwartz criterion	0.147860
Log likelihood	-112.1085	F-statistic	2.125646
Durbin-Watson stat	1.591170	Prob(F-statistic)	0.071041

MODEL 6

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:37
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.948473	0.709820	2.745024	0.0075
TC6	-0.018909	0.011263	-1.678855	0.0972
AGE	0.005700	0.013898	0.410136	0.6828
INCOME	0.000198	8.09E-05	2.445023	0.0167
EDU	-0.084715	0.048072	-1.762242	0.0819
CSSITES	-0.013100	0.011884	-1.102248	0.2737

R-squared	0.118145	Mean dependent var	1.055595
Adjusted R-squared	0.061616	S.D. dependent var	0.985649
S.E. of regression	0.954801	Akaike info criterion	-0.023756
Sum squared resid	71.10827	Schwartz criterion	0.149874
Log likelihood	-112.1931	F-statistic	2.089981
Durbin-Watson stat	1.550682	Prob(F-statistic)	0.075463

MODEL 7

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:38
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	1.940284	0.707781	2.741362	0.0076
TC7	-0.019067	0.011222	-1.699057	0.0933
AGE	0.005765	0.013884	0.415210	0.6791
INCOME	0.000200	8.13E-05	2.459502	0.0161
EDU	-0.084573	0.048039	-1.760504	0.0822
CSSITES	-0.013116	0.011878	-1.104166	0.2729

R-squared	0.118889	Mean dependent var	1.055595
Adjusted R-squared	0.062407	S.D. dependent var	0.985649
S.E. of regression	0.954398	Akaike info criterion	-0.024600
Sum squared resid	71.04828	Schwartz criterion	0.149030
Log likelihood	-112.1576	F-statistic	2.104918
Durbin-Watson stat	1.559207	Prob(F-statistic)	0.073579

MODEL 8

LS // Dependent Variable is LNTRIPS
Date: 04/18/01 Time: 10:38
Sample: 1 158
Included observations: 84
Excluded observations: 74

Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	2.156427	0.700419	3.078769	0.0029
TC8	-0.008868	0.003474	-2.552794	0.0126
AGE	0.006310	0.013500	0.467430	0.6415
INCOME	0.000240	7.86E-05	3.060282	0.0030
EDU	-0.086938	0.046954	-1.851552	0.0679
CSSITES	-0.017091	0.011658	-1.466068	0.1466

R-squared	0.156732	Mean dependent var	1.055595
Adjusted R-squared	0.102677	S.D. dependent var	0.985649
S.E. of regression	0.933677	Akaike info criterion	-0.068499
Sum squared resid	67.99678	Schwartz criterion	0.105130
Log likelihood	-110.3139	F-statistic	2.899464
Durbin-Watson stat	1.506153	Prob(F-statistic)	0.018759

APPENDIX K

Linear Model:

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Constant	3.759 OLS se (3.71) White se (4.93)	3.810 OLS se (3.71) White se (4.93)	3.7500 OLS se (3.71) White se (4.92)	3.709 OLS se (3.68) White se (4.70)	3.690 OLS se (3.679) White se (4.70)	4.021 OLS se (3.70) White se (4.74)	3.968 OLS se (3.70) White se (4.74)	4.937 OLS se (3.70) White se (4.78)	4.908 OLS se (3.70) White se (4.78)
TC	-0.065 OLS se (0.07) White se (0.04)	-0.071 OLS se (0.08) White se (0.04)	-0.068 OLS se (0.08) White se (0.04)	-0.0290 OLS se (0.03) White se (0.02)	-0.0288 OLS se (0.03) White se (0.02)	-0.0729 OLS se (0.06) White se (0.04)***	-0.0715 OLS se (0.06) White se (0.04)***	-0.043 OLS se (0.02)** White se (0.02)*	-0.043 OLS se (0.02)** White se (0.02)*
Age	0.0705 OLS se (0.08) White se (0.11)	0.0670 OLS se (0.08) White se (0.11)	0.0676 OLS se (0.08) White se (0.11)	0.056 OLS se (0.08) White se (0.11)	0.057 OLS se (0.08) White se (0.11)	0.0586 OLS se (0.08) White se (0.11)	0.0595 OLS se (0.08) White se (0.11)	0.0588 OLS se (0.08) White se (0.11)	0.0592 OLS se (0.08) White se (0.11)
Income	0.00082 OLS se (0.00)** White se (0.00)	0.00081 OLS se (0.00)** White se (0.00)	0.00081 OLS se (0.00)** White se (0.00)	0.00126 OLS se (0.00)** White se (0.00)	0.0013 OLS se (0.00)** White se (0.00)**	0.0012 OLS se (0.00)* White se (0.00)**	0.00119 OLS se (0.00)* White se (0.00)**	0.0015 OLS se (0.00)* White se (0.00)**	0.00149 OLS se (0.00)* White se (0.00)**
Education	-0.295 OLS se (0.26) White se (0.30)	-0.295 OLS se (0.26) White se (0.30)	-0.2932 OLS se (0.26) White se (0.30)	-0.2682 OLS se (0.26) White se (0.29)	-0.268 OLS se (0.26) White se (0.30)	-0.285 OLS se (0.26) White se (0.30)	-0.284 OLS se (0.26) White se (0.30)	-0.2802 OLS se (0.26) White se (0.30)	-0.2799 OLS se (0.26) White se (0.30)
CSSites	-0.0297 OLS se (0.03) White se (0.01)**	-0.0284 OLS se (0.03) White se (0.01)**	-0.0285 OLS se (0.03) White se (0.01)**	-0.0342 OLS se (0.03) White se (0.02)**	-0.0342 OLS se (0.03) White se (0.02)**	-0.0301 OLS se (0.03) White se (0.02)**	-0.030 OLS se (0.03) White se (0.02)***	-0.042 OLS se (0.03) White se (0.02)*	-0.042 OLS se (0.03) White se (0.02)*
R^2	0.078	0.078	0.078	0.08	0.08	0.08	0.08	0.10	0.10
D-W stat	2.09	2.09	2.09	2.08	2.08	2.09	2.09	2.08	2.08
F-stat	2.546**	2.568**	2.556**	2.660**	2.657**	2.743**	2.732**	3.363*	3.357*

*, ** and ***, shows a significancy level at 1%, 5% and 10% respectively.
OLS se = Ordinary Least Square standard error
White se = White-test standard error

APPENDIX L

Semi-log (dependent) Model:

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Constant	1.780 OLS se (0.75)	1.787 OLS se (0.75)	1.786 OLS se (0.743)	1.809 OLS se (0.692)	1.8056 OLS se (0.692)	1.948 OLS se (0.710)	1.940 OLS se (0.710)	2.156 OLS se (0.700)	2.154 OLS se (0.670)
TC	-0.0098 OLS se (0.0119)	-0.0110 OLS se (0.021)	-0.0114 OLS se (0.021)	-0.007 OLS se (0.004)***	-0.0075 OLS se (0.004)***	-0.019 OLS se (0.011)***	-0.019 OLS se (0.011)***	-0.0089 OLS se (0.003)*	-0.0089 OLS se (0.003)*
Age	0.0088 OLS se (0.014)	0.0085 OLS se (0.014)	0.0085 OLS se (0.014)	0.00569 OLS se (0.014)	0.0057 OLS se (0.014)	0.00570 OLS se (0.014)	0.0058 OLS se (0.014)	0.0063 OLS se (0.014)	0.0063 OLS se (0.013)
Income	0.00011 OLS se (6.07E-05)***	0.00011 OLS se (6.06E-05)***	0.00011 OLS se (6.06E-05)***	0.00022 OLS se (8.27E-05)*	0.00022 OLS se (8.75E-05)*	0.0002 OLS se (8.09E-05)*	0.0002 OLS se (8.13E-05)*	0.0002 OLS se (7.86E-05)*	0.0002 OLS se (7.87E-05)*
Education	-0.0839 OLS se (0.05)***	-0.0842 OLS se (0.05)***	-0.0844 OLS se (0.05)***	-0.076 OLS se (0.05)***	-0.076 OLS se (0.05)***	-0.0847 OLS se (0.048)***	-0.0846 OLS se (0.048)***	-0.0869 OLS se (0.047)**	-0.0869 OLS se (0.047)**
CSSites	-0.0133 OLS se (0.012)	-0.0130 OLS se (0.012)	-0.0129 OLS se (0.012)	-0.0146 OLS se (0.012)	-0.0146 OLS se (0.012)	-0.0131 OLS se (0.012)	-0.0131 OLS se (0.012)	-0.017 OLS se (0.012)	-0.017 OLS se (0.012)
R^2	0.09	0.09	0.09	0.12	0.12	0.12	0.12	0.16	0.16
D-W stat	1.56	1.55	1.55	1.59	1.59	1.55	1.56	1.51	1.51
F-stat	1.532	1.533	1.54	2.12***	2.12***	2.09***	2.10***	2.90*	2.91*

*, ** and ***, shows a significancy level at 1%, 5% and 10% respectively.
OLS se = Ordinary Least Square standard error

APPENDIX M

Estimates of Consumers' Surplus Per Trip to MAP (RM)

Functional Form		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Linear	Choke Travel Cost	53.26	46.18	47.96	145.03	145.18	58.15	59.25	134.20	133.23
Linear	Mean Travel Cost	9.85	4.48	4.40	42.54	42.34	17.57	17.55	65.30	64.33
Linear	Consumers' Surplus Per/Trip	67.37	61.72	64.47	151.69	152.20	60.06	61.72	101.97	102.12
Linear	Annual Consumers' Surplus	8,506,338	7,792,952	8,140,175	19,152,834	19,217,228	7,583,355	7,792,952	12,875,038	12,893,977
Semi-log	Choke Travel Cost	105.23	93.55	95.09	186.14	176.13	68.85	68.89	176.03	175.52
Semi-log	Mean Travel Cost	99.65	88.57	90.12	178.33	168.84	65.97	66.01	169.86	169.38
Semi-log	Consumers' Surplus Per/Trip	2.70	2.48	2.39	3.68	3.66	1.45	1.43	3.09	3.07
Semi-log	Annual Consumers' Surplus	34,091	313,132	301,768	464,647	462,122	183,001	180,556	390,152	387,627
Semi-log	G-M Consumers' Surplus Per/Trip	101.78	90.78	87.61	134.73	133.80	52.88	52.45	112.76	112.30
Semi-log	G-M Annual Consumers' Surplus	12,851,048	11,462,155	11,061,901	17,011,414	16,893,989	6,676,787	6,622,494	14,237,415	14,179,335

G-M = Gum and Martin Approach
Number of Visitors in 2000 = 126,263

APPENDIX N

GOVERNMENT TRAVEL ALLOWANCES RATE*

CLASS/	A		B		C		D		E	
KM/CC	RM>1400	CC>1.4	1200<RM<1400	1000<CC<1.4	820<RM<1200	CC<1000	RM<820	175<CC<1000	RM<820	CC<175
500	55		41		35		17		9	
150	51		37		31		16		8	
150	48		35		29		13		7	
150	39		33		29		13		7	
150	38		32		27		11		6	
150	36		32		27		11		6	
150	35		32		27		9		5	
150	33		31		26		9		5	
150	33		31		26		9		5	

Source : Ujian Ketukangan Kebangsaan - *Panduan dan Maklumat Kepada Pusat Ujian Mengenai Ujian Ketukangan Kebangsaan LLPPKK*, Ogos 1988.